

CHAPTER 1: INTRODUCTION

The California High School Exit Examination

California has just concluded the third year of administering its High School Exit Examination. The requirement that students pass a graduation exam in mathematics and English-language arts (ELA) beginning with the Class of 2004 was established by Senate Bill (SB)-2X, passed in 1999 and written into the California Education Code as Chapter 8, Sections 60850-60856. This section of the code was further modified through the passage of AB 1609 in 2002. The revised legislation gave the State Board of Education (the Board) authority to postpone the CAHSEE requirement based in part on a study to be conducted of the extent to which both test development and standards-based instruction met standards for this type of examination. The study report was issued on May 1, 2003 (Wise et al., May 2003). In July, after the completion of the 2002–03 CAHSEE testing, the Board voted to defer the CAHSEE requirement until 2006.

The legislation that mandates the requirements for the graduation exam also specifies an independent evaluation of the CAHSEE. The California Department of Education (CDE) awarded a contract for this evaluation to the Human Resources Research Organization (HumRRO). HumRRO's efforts focus on analyses of data from tryouts of test questions and from the annual administrations of the CAHSEE, and report on trends in pupil performance and retention, graduation, dropout, and college attendance rates. The legislation also specifies that evaluation reporting will include recommendations for improving the quality, fairness, validity, and reliability of the examination. The legislation required an initial evaluation report in June 2000 and biennial reports to the Governor, Legislature, the Board, and CDE in February 2002 and February 2004.

In addition to the legislatively required evaluation reports, the contract for the evaluation requires an annual report of evaluation activities. The present report meets the contract requirement for a report of activities and findings during the fourth year of the evaluation. This report adds to results and recommendations included in prior evaluation reports (Wise, Hoffman, & Harris, 2000; Wise, Harris, Sipes, Hoffman, & Ford, 2000a; Wise, Sipes, George, Ford, & Harris, 2001; Wise et al. 2002a, Wise et al. 2002b). Findings and recommendations from the prior reports are summarized briefly in the next two sections to provide a context for the continuing evaluation activities.

Prior Evaluation Activities and Outcomes

Summary of Year 1 Activities (June 2000)

The Year 1 evaluation activities involved reviewing and analyzing three types of information:

Review of Test Developer Plans and Reports. No formal reports were available during the first year; thus, we attended meetings and listened to presentations by the development contractor, American Institutes for Research (AIR), and by CDE. We also monitored

various presentations to the HSEE Panel and to the Board and had direct conversations with members of each of these groups.

Statewide Data Sources. An initial source of information for our evaluation was data from the CAHSEE pilot administration. We also examined 1999 Standardized Testing and Reporting (STAR; for details see <http://star.cde.ca.gov/>) results with plans to monitor trends in STAR results over the course of the evaluation.

District and School Sample. We selected a representative sample of 24 districts and approximately 90 of their high schools to establish a longitudinal group for study. The baseline surveys, which were administered to principals and English-language arts and mathematics teachers, provided an initial look at schools' perspectives of the impact of CAHSEE on their programs. We also recruited teachers and curriculum experts from these schools and their districts to review test items and tell us if they covered knowledge and skills that not all students would be taught in their current curriculum.

The following summarizes the specific recommendations made at the end of the Year 1 evaluation activities.

Recommendation 1. The Legislature and Governor should give serious consideration to postponing full implementation of the CAHSEE requirement by one or two years.

Recommendation 2. CDE should develop and seek comment on a more detailed timeline for CAHSEE implementation activities. This timeline should show responsibility for each required task and responsibility for oversight of the performance of each task. The plan should show key points at which decisions by the Board or others are required along with separate paths for alternative decisions that may be made at each of these points.

Recommendation 3. CDE and the Board should work with districts to identify resource requirements associated with CAHSEE implementation. The Legislature must be ready to continue to fund activities to support the preparation of students to meet the ambitious challenges embodied in the CAHSEE.

Recommendation 4. The Board should adopt a clear statement of its intentions in setting CAHSEE content and performance standards. This statement should describe the extent to which these standards are targeted to ensure minimum achievement relative to current levels or to significantly advance overall expectations for student achievement.

Recommendation 5. The Board should exhibit moderation in selecting content standards and setting performance standards for the initial implementation of CAHSEE. Subsequently, standards should be expanded or increased based on evidence of improved instruction.

Recommendation 6. Members of the HSEE Panel and its Technical Advisory Committee should participate in developing recommendations for minimum performance standards.

Recommendation 7. CDE should move swiftly to establish an independent Technical Issues Committee (TIC) to recommend approval or changes to the CAHSEE development contractor's plans for item screening, form assembly, form equating, scoring, and reporting.

Complete details of the Year 1 effort, including selection procedures for the longitudinal sample, are presented in a primary and a supplemental report describing evaluation activities, findings, and recommendations (Wise et al., 2000a; Wise et al., 2000b). Those two evaluation reports emphasize both the positive aspects of the results, as indicated by several measures of the quality of the test questions, and the amount of work remaining to be done before operational administration of the CAHSEE. The primary apprehension noted in these reports was educators' concern that at that time, students were not well prepared to pass the exam.

District Baseline Survey Resulting from Year 1 Activities (December 2000)

The results of the baseline survey of teachers and principals in the longitudinal sample of high schools indicated concern with the degree to which students were being provided sufficient opportunities to learn the material covered by the CAHSEE. After reviewing these concerns, the Board and CDE requested an additional survey of all public high school and unified districts in California. HumRRO developed and sent out the CAHSEE District Baseline Survey shortly after the Board adopted specifications for the CAHSEE, which was required prior to October 1, 2000. The survey covered plans for changes in curriculum and other programs to help students pass the examination. We asked that each district have the survey completed by an Assistant Superintendent or Director of Curriculum and Instruction, or the individual at the district level who was most knowledgeable about CAHSEE.

The survey, which built on and benefited from the results of the longitudinal sample survey, addressed five critical topics:

1. *Awareness* of the CAHSEE, its content, administration plans, and requirements for student participation.
2. *Alignment* of the district's curriculum to statewide content standards, particularly those to be covered by the CAHSEE.
3. *Plans and Preparation* for increasing opportunities for all students to learn the material covered by the CAHSEE and to help students who do not initially pass the examination.
4. *Expectations* for passing rates and for the effect of the CAHSEE on instruction and the status of specific programs offered in the district.
5. *Outcome baselines*, including retention and graduation rates and students' post-graduation plans.

The following general conclusions were drawn from results of the district survey:

1. *General awareness* of the CAHSEE is high, but more information is needed, particularly for students and parents, about (a) the knowledge and skills covered by the CAHSEE and (b) plans for administration and reporting.
2. *Districts report high degrees of alignment* of their own content standards to the state content standards. The survey addressed this question at a general level; more work is needed to assess and document the degree to which each district's curriculum covers

- the content standards tested by the CAHSEE and the degree of student access to courses that offer such coverage.
3. *Districts have implemented or are planning a number of programs* to prepare students and teachers for the CAHSEE and to assist students who do not initially pass. The most frequently planned activities include more summer school, tutoring, and matching student needs to specific courses.
 4. *Districts believe the CAHSEE will have a positive impact* on curriculum and instruction. Most expect at least half of their students to pass the CAHSEE on their first attempt.
 5. *Outcome baselines* will be used in future years.

Complete details of the district-wide survey effort are presented in a final technical report describing evaluation activities, findings, and recommendations (Sipes, Harris, Wise, & Gribben, 2001).

Summary of Year 2 Activities (June 2001)

The Year 2 evaluation activities involved reviewing and analyzing three types of information:

Review of Test Developer Plans and Reports. We continued to monitor test development activities, ranging from observation of and presentations to the HSEE Panel to observation of the standard-setting workshops to develop recommendations for minimum passing scores for each of the two portions of the CAHSEE test: mathematics and ELA. We reviewed and participated in numerous discussions concerning the equating of alternate forms, the score scale used, and the minimum passing levels.

Analysis of Field-Test and Operational CAHSEE Data. We analyzed results from a second field test of new CAHSEE questions, conducted in Fall 2000, and began analyses from the operational administrations of CAHSEE in March and May of 2001. Initial analyses of technical characteristics of the test form used in the March administration and the resulting passing rates were described in our Year 2 Evaluation Report (Wise et al., June 2001).

Longitudinal Surveys of District and School Sample Personnel. The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed to identify issues with the administration of the CAHSEE.

The following summarizes the two general and six specific recommendations made in our report of the Year 2 evaluation activities.

Recommendation 1. Stay the course. The Legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

Recommendation 2. The Legislature and Board should continue to consider options for students with disabilities and English learners.

Recommendation 3. The CAHSEE needs more technical oversight as its development and administration continues.

Recommendation 4. For future classes, delay testing until the 10th grade.

Recommendation 5. Construct a practice test of released CAHSEE items and give it to districts and schools to use with 9th graders to identify students at risk of failing the CAHSEE.

Recommendation 6. Monitor test administration more extensively and develop a system for identifying and resolving issues.

Recommendation 7. Develop and implement a more comprehensive statewide information system that will allow CDE to monitor individual student progress.

Recommendation 8. The Superintendent, the Board, and Legislature should specify in more detail how students in special circumstances will be treated by the CAHSEE requirements.

Complete details of the Year 2 effort are presented in a primary and a supplemental report describing evaluation activities, findings, and recommendations (Wise et al., June 2001; Wise et al., January 2002a). Those two evaluation reports describe results of the first administration of the CAHSEE to 9th graders in the Class of 2004. The reports also described preparation for and reactions to the CAHSEE as reported by principals and teachers. A key concern described in these reports was the relatively low passing rates for the mathematics portion of the exam, particularly for English learners and special education students.

Summary of Year 3 Activities (June 2002)

The first biennial report of the CAHSEE evaluation was issued in February 2002 (Wise et al., 2002a). This report supplemented information on the 2002 administrations from the Year 2 report and included specific recommendations to the Legislature, Governor, and State Board. These were:

General Recommendation 1: Stay the course. The Legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

General Recommendation 2: The Legislature and Board should continue to consider options for students with disabilities and for English learners.

The first biennial report also included several more specific recommendations:

- More technical oversight is needed.
- For future classes, testing should be delayed until the 10th grade.
- A practice test of released CAHSEE items should be constructed and given to districts and schools to use with 9th graders to identify students at risk of failing the CAHSEE.

- More extensive monitoring of test administration and a system for identifying and resolving issues is needed.
- The state needs a more comprehensive information system that will allow it to monitor individual student progress.
- The Superintendent, the Board, and Legislature should specify in more detail how students in special circumstances will be treated by the CAHSEE requirements.

Other Year 3 evaluation activities involved reviewing and analyzing four types of information:

Review of Test Developer Plans and Reports. We continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

Collection and analyses of independent review of test questions. We assembled two panels of experts in curriculum and instruction, most of whom taught either ELA or mathematics, and asked them to review both questions from recent CAHSEE administrations and questions from the (then) new test development contractor that had not yet been used operationally. Ratings indicated the extent to which the questions assessed targeted content standards fairly and completely. In addition, we asked the reviewers to note any specific issues with the quality of the questions or the response options.

Analysis of Operational CAHSEE Data. We analyzed results from the operational administration of CAHSEE to 10th graders in March of 2002. Initial analyses of technical characteristics of the test form used in the March administration and the resulting passing rates were described in our Year 3 Evaluation Report (Wise et al., June 2002b).

Longitudinal Surveys of District and School Sample Personnel. The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed to identify issues with the administration of the CAHSEE.

The Year 3 report of evaluation activities summarized findings from the data that were analyzed. The report stated that available evidence suggested that the CAHSEE has not yet had any impact on retention, dropout rates, or expectations for graduation and post-high-school plans. Progress in developing the exam continued to be noteworthy. We found no significant problems with the development, administration or scoring of the March 2002 exam. Students made significant progress in mastering the required ELA skills, but less progress in mathematics. For disadvantaged students, initial passing rates continued to be low and progress for repeat test-takers was limited. Teachers and principals remained positive about the CAHSEE's impact on instruction. More of them now expect positive impact on student motivation and parental involvement. Finally, teachers and principals reported planning and/or implementing a number of constructive programs for helping students master the skills covered by the CAHSEE.

Based on these findings, we offered the following two general and four more specific recommendations:

General Recommendation 1: Schools need to focus attention on effective ways of helping students master the required skills in mathematics. CDE might consider a “what works” effort with respect to remedial programs, and disseminating information about effective programs and practices.

General Recommendation 2: State policymakers need to engage in a discussion about reasonable options for students with disabilities who may not ever be likely to pass the test.

Specific Recommendation 1: The score scale needs to be changed for students scoring below 300 (chance levels). A short-term solution is to simply recode scores below 300 to 299. Teachers, students, and parents need to be cautioned against interpreting differences below the 300 level.

Specific Recommendation 2: Districts and schools should be asked to supply more complete information on who has taken, is taking, and still needs to take the CAHSEE.

Specific Recommendation 3: CDE should work with schools to collect more information on documentation of student needs for accommodations or modifications.

Specific Recommendation 4: Educational Testing Service (ETS) should follow up on (a) specific test question issues identified in our item review workshops and (b) specific suggestions for improving their new scoring process from our review of their current online training.

Summary of Year 4 Evaluation Activities

Special Study of Standards-Based Instruction (May 2003)

In 2002, the Legislature passed AB 1609, which included several changes to the CAHSEE. Among other things, this bill called for a special study of the extent to which the development of the CAHSEE and standards-based instruction met the requirements for a high school graduation test. Evaluation activities were expanded to meet the requirements for this study. A detailed description of the study along with findings and recommendations were included in a report to the State Board of Education issued May 1 (Wise et al., May 2003, <http://www.cde.ca.gov/statetests/cahsee/eval/AB1609/index.html>) and are not repeated in the present report. Key findings from the study were:

Finding 1: The development of the CAHSEE meets all of the test standards for use as a graduation requirement.

Finding 2. The CAHSEE requirement has been a major factor leading to dramatically increased coverage of the California academic content standards at both the high school and middle school level and to development or improvement of courses providing help for students who have difficulty mastering these standards.

Finding 3. Available evidence indicates that many courses of initial instruction and remedial courses have only limited effectiveness in helping students master the required standards.

Finding 4. Lack of prerequisite skills may prevent many students from receiving the benefits of courses that provide instruction in relevant content standards. Lack of student motivation and lack of strong parental support may play a contributing role in limiting the effectiveness of these courses.

General Finding 5. Many factors suggest that the effectiveness of standards-based instruction will improve for each succeeding class after the Class of 2004, but the speed with which passing rates will improve is currently unknown.

The report did not offer a specific recommendation on whether the CAHSEE requirement should be deferred. The report suggested the tradeoffs between losing motivation for continued attention to students not achieving critical skills if the requirement were deferred and becoming distracted by debates and legal actions concerning the adequacy of current instruction if the requirement were continued. Balancing these tradeoffs required that the Board make a policy decision. The report did offer several specific suggestions for consideration if the requirement were continued and other suggestions in the case that the requirement would be deferred. Ultimately, the Board decided to defer the requirement until the Class of 2006. Please see the California Department of Education website [www.cde.ca.gov] for further details on this special study.

Other Year 4 Activities

Review of Test Developer Plans and Reports. We continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

Analysis of Operational CAHSEE Data. We analyzed results from the six operational administrations of CAHSEE from July 2002 through May 2003. These included continued administration to 11th graders in the Class of 2004 who had not yet passed one or both parts of the CAHSEE and a census administration to 10th graders in the Class of 2005.

Longitudinal Surveys of District and School Sample Personnel. The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed for the second year to identify issues with the administration of the CAHSEE.

Organization and Contents of Year 4 Evaluation Report

The Year 4 Evaluation Report covers activities performed in the independent evaluation through September 30, 2003. As described above, one major activity during Year 4 was development of the legislatively required report in response to AB 1609 (Wise et al., May 2003). Results of that effort are summarized above and not repeated further in the current report. See <http://www.cde.ca.gov/statetests/cahsee/eval/AB1609/index.html> for detailed information on this effort.

Chapters 2–4 of the current report describe other activities conducted during Year 4 and present the results of these activities. The final chapter describes the main findings from these results and our recommendations based on them. The Year 4 Report satisfies a contractual requirement to report on evaluation activities each year. Results from our activities have led to several recommendations that respond to the evaluation requirement for suggestions to improve the quality and effectiveness of the exam and its use.

Chapter 2 presents analyses of the 2002–03 CAHSEE administrations. The analyses show passing rates for different demographic groups in the Class of 2004 and the Class of 2005. Results are compared to STAR outcomes for these same students. Average score gains from 10th to 11th grade for students in the Class of 2004 are compared to score gains from 9th to 10th grade for students in this same class.

Chapter 3 presents responses to the student questionnaire administered at the end of each testing session. The questions focus on the students’ preparation, reactions to the test, and plans. The analysis includes changes in expectations for graduation and post-high-school plans for students who completed questionnaires in March and May of 2002.

Chapter 4 describes results from the third spring survey of teachers and principals participating in the longitudinal study sample. HumRRO continued to organize the evaluation information into five critical areas:

- **Awareness** of and familiarity with the CAHSEE
- **Alignment** of the districts’ curricula to state/CAHSEE content standards
- **Planning and preparation** for the CAHSEE
- **Expectations** of impact on instruction, passing rates, and consequences of the CAHSEE
- **Potential effect on** dropout and graduation rates and college attendance

Observations by test site coordinators on the administration and scoring processes are included.

Chapter 5 presents our Findings and Recommendations based on the existing state of data analyses and results.

